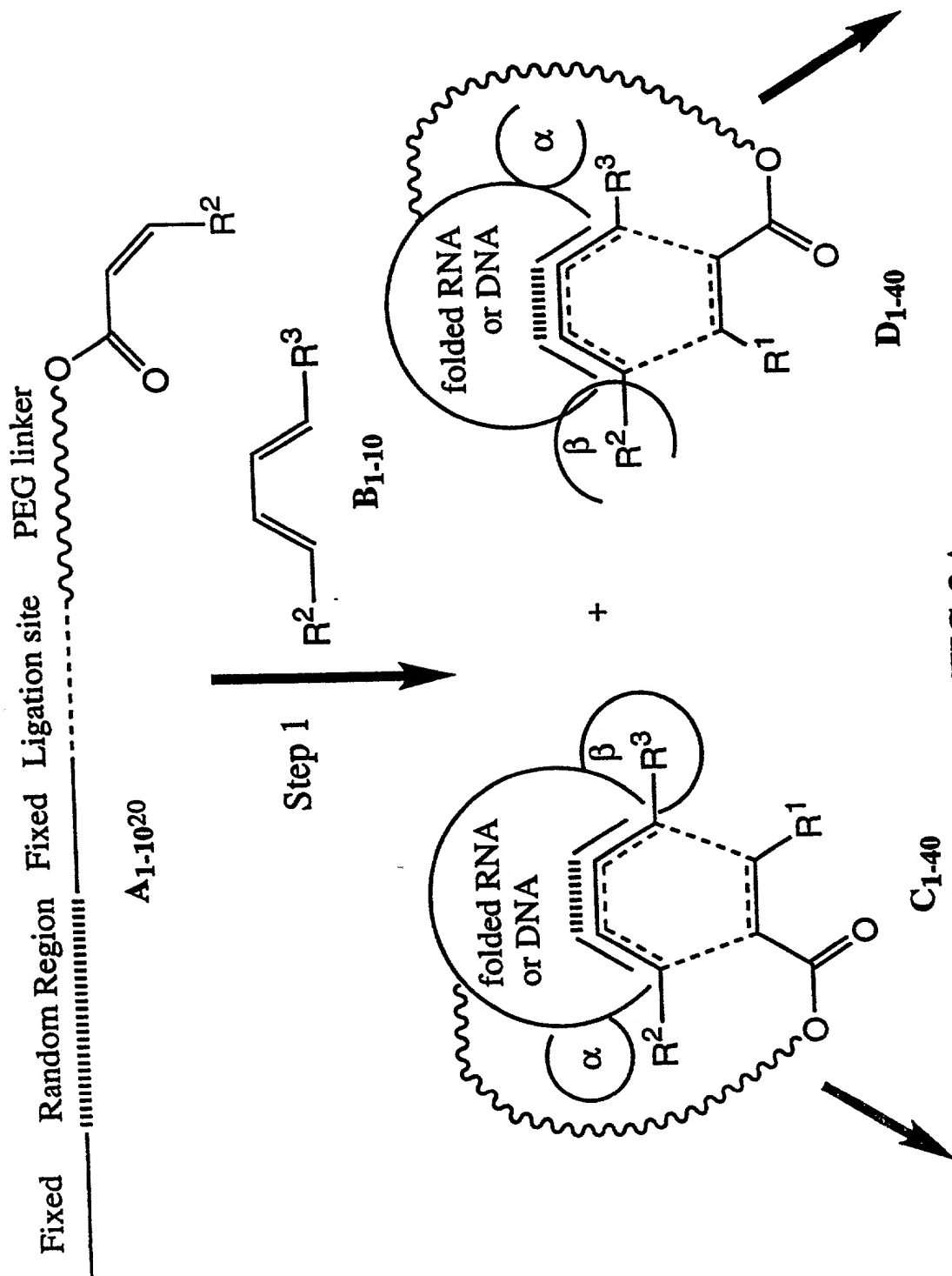


FIG. 1

FIG. 1



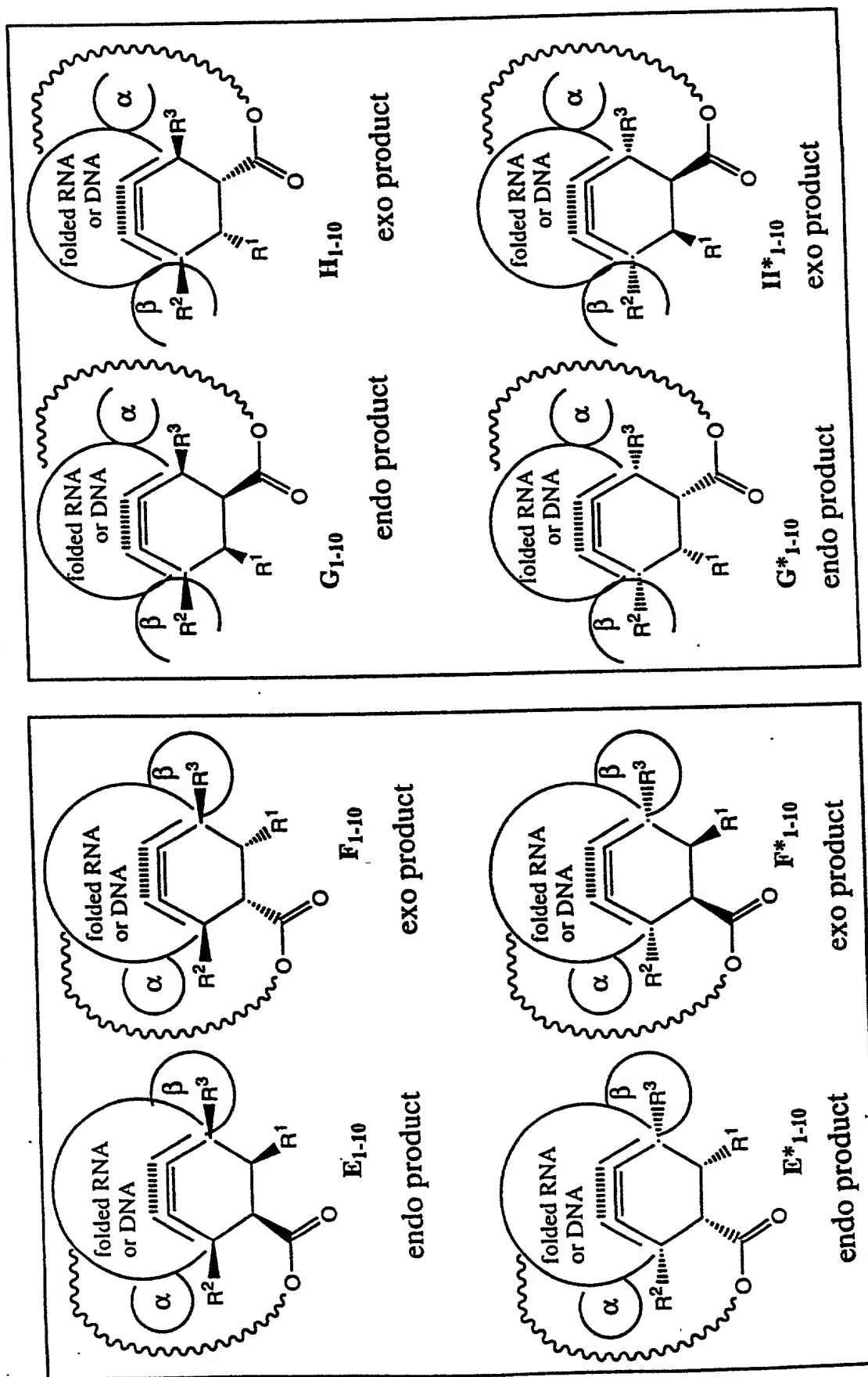


FIG. 2B

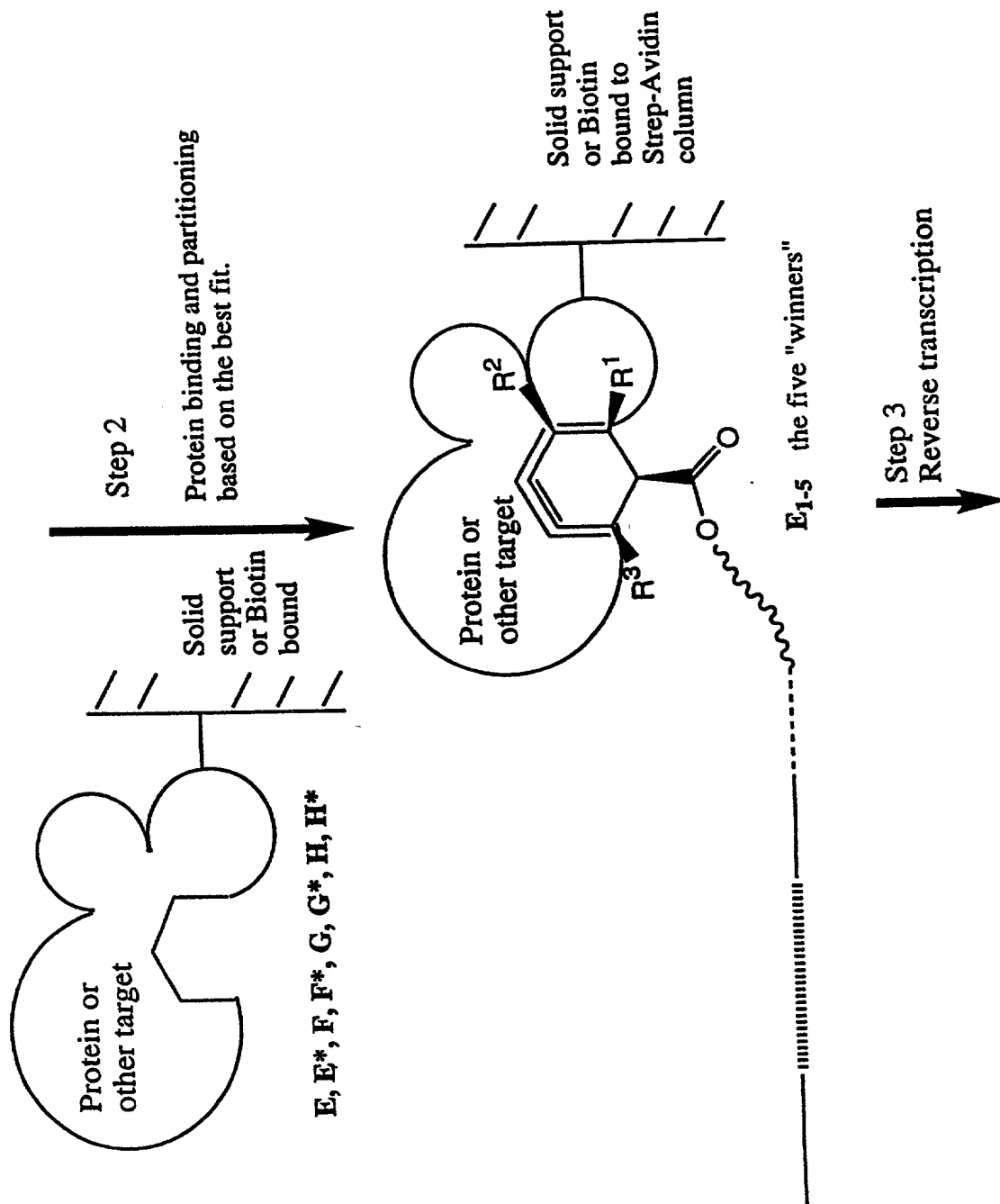
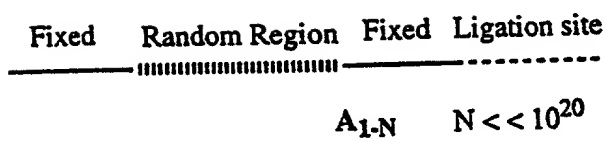


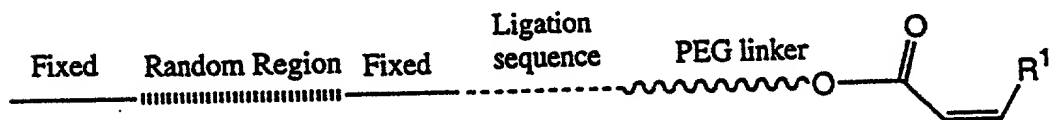
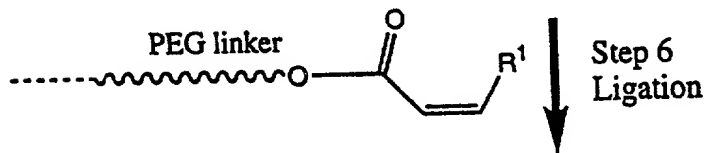
FIG. 2C

Step 4
PCR

Step 5
T7 transcription



Note that this RNA structure when folded up is the active catalyst for the formation of the cyclohexene products denoted by E above



Repeat Steps 1 through 6 until either catalytic activity is maximized as measured after Step 5 or until binding affinity as in Step 2 levels off and A becomes nonrandom.

Isolate clones and sequence.

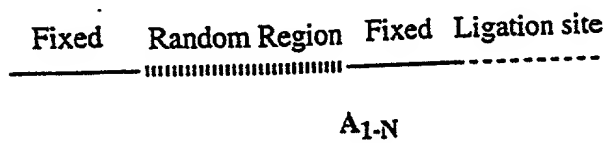


FIG. 2D

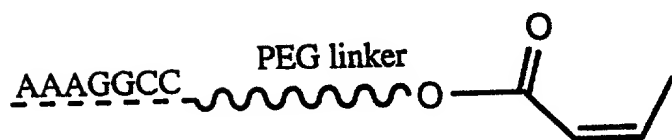


FIG. 3A

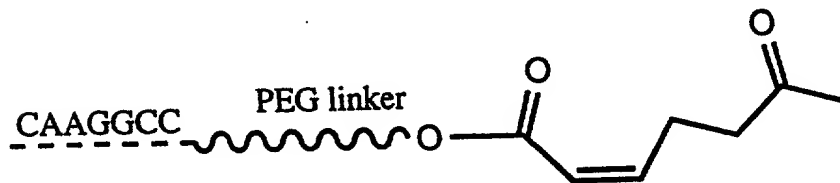


FIG. 3B

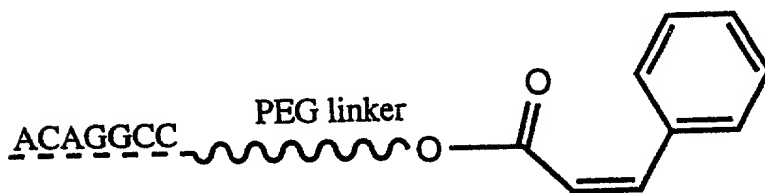


FIG. 3C

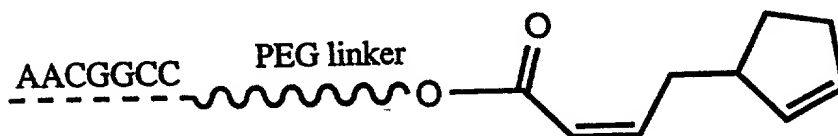


FIG. 3D

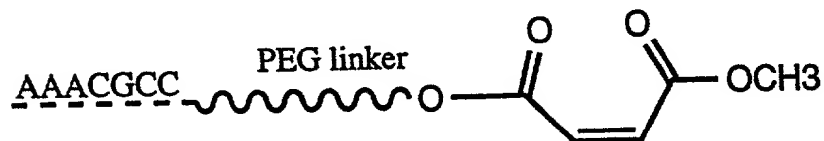


FIG. 3E

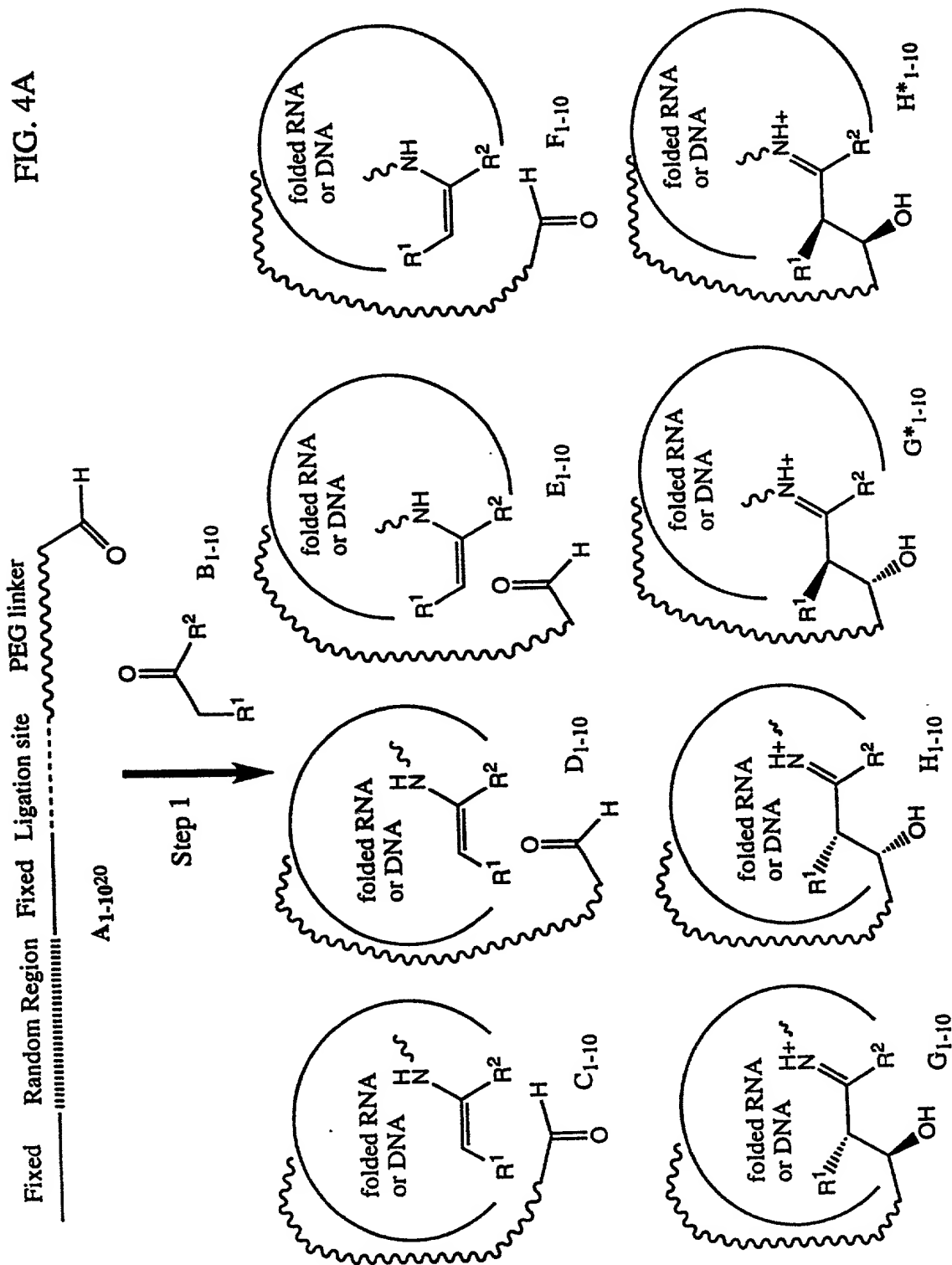


FIG. 4A

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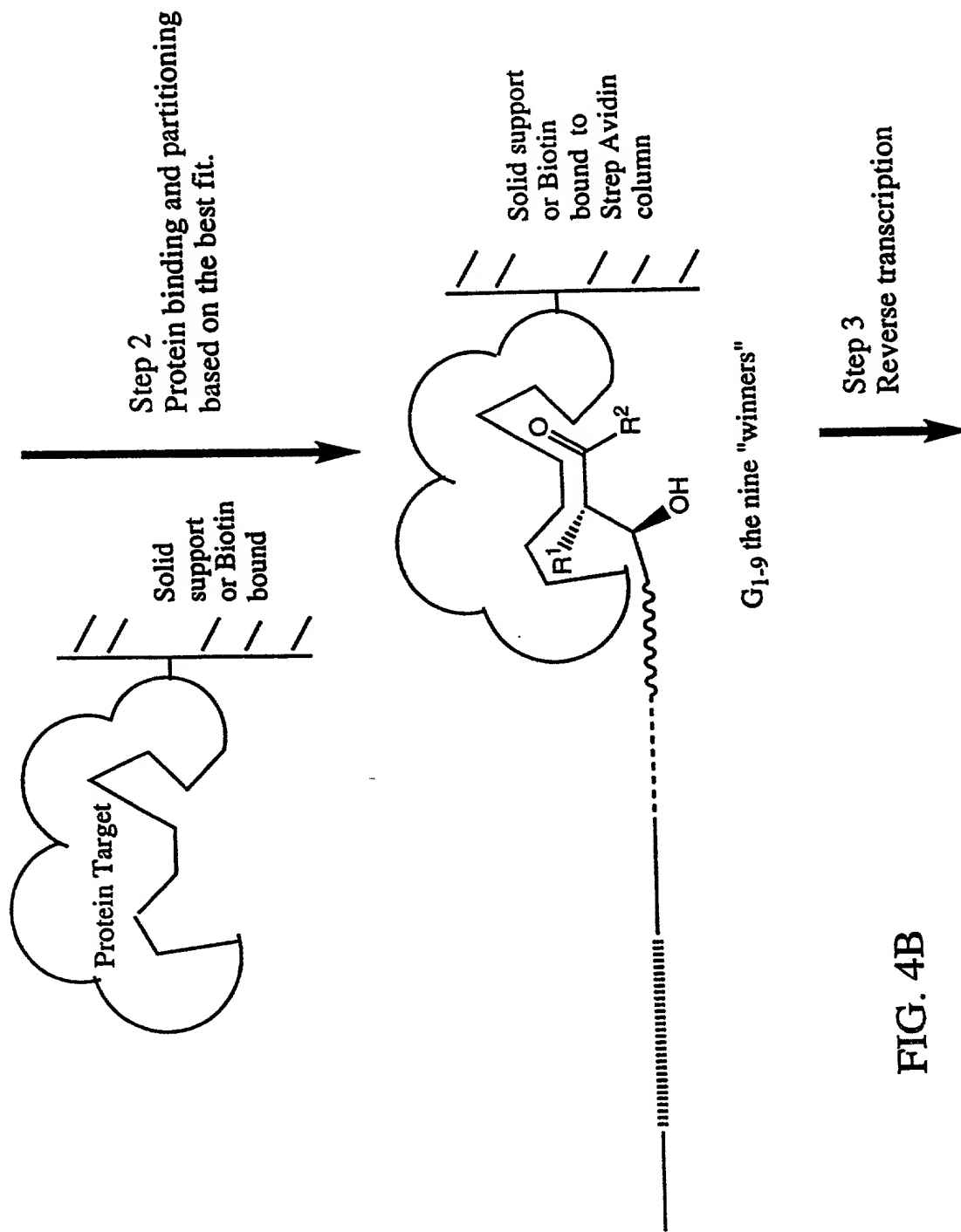


FIG. 4B

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093444-03004
T00240-ETH3T660

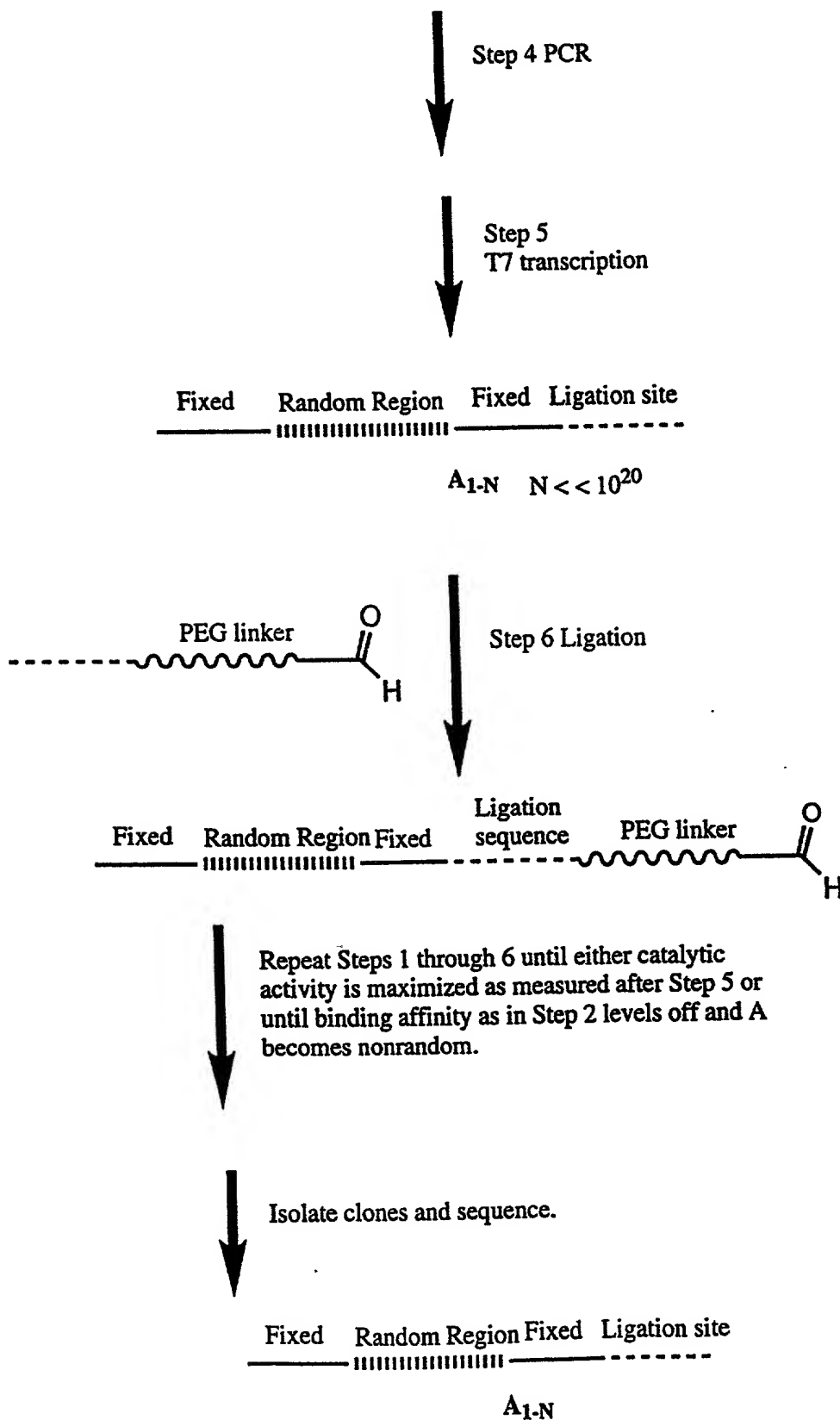


FIG. 4C

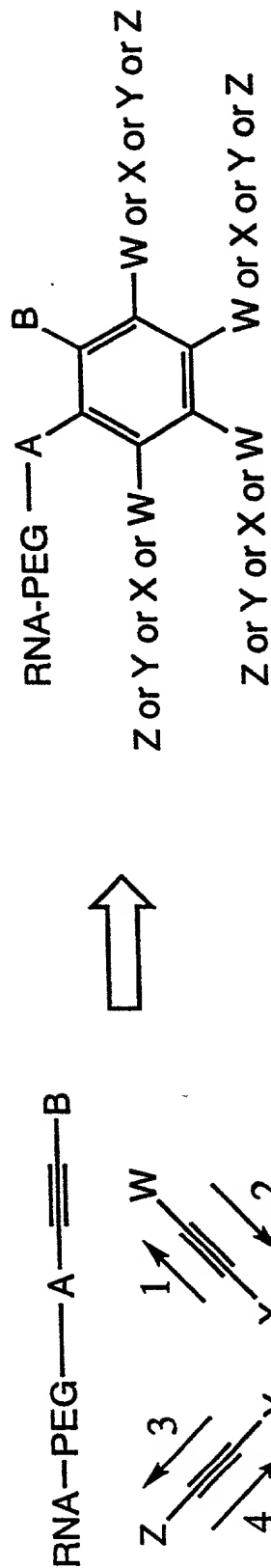


FIG. 6A

1	2	3	4
1 1,1	2,1	3,1	4,1
2 1,2	2,2	3,2	4,2
3 1,3	2,3	3,3	4,3
4 1,4	2,4	3,4	4,4

FIG. 6B

2636-108-2
07.3

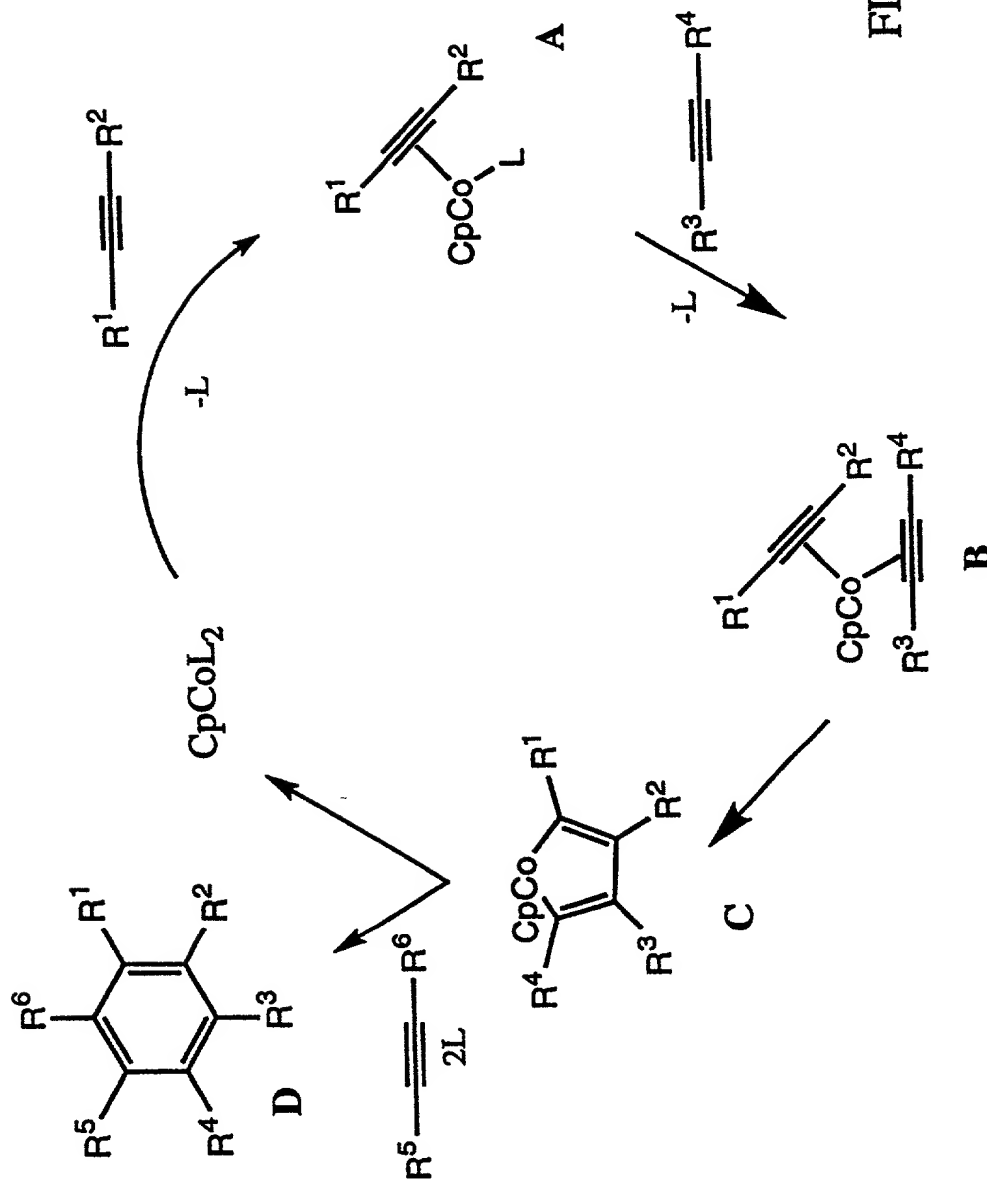


FIG. 6C

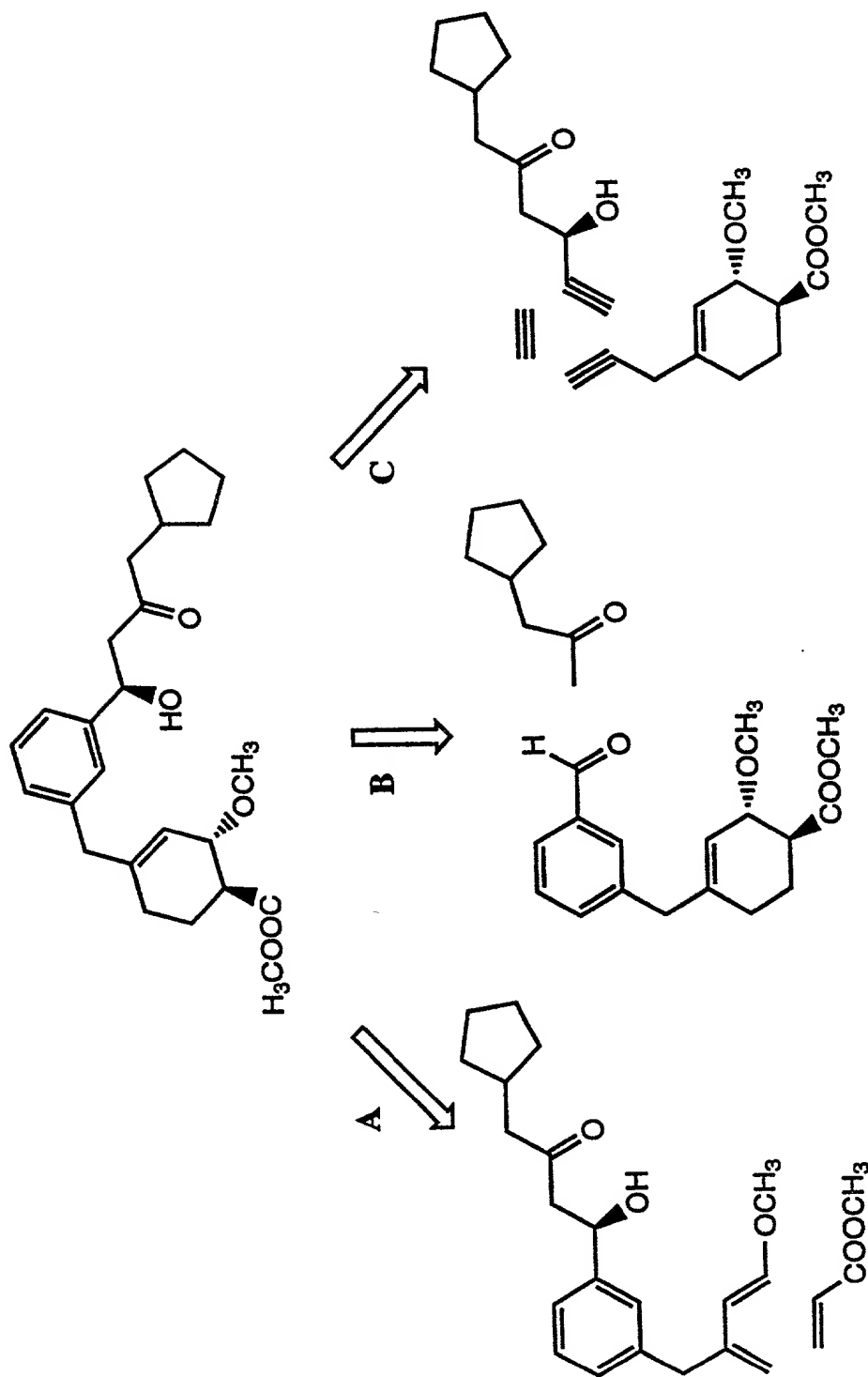


FIG. 7